

U.S.S.N. 09/837,124

Listing of Claims

1. (previously presented) A method for detecting contaminating species on a wafer edge comprising the steps of:

providing a wafer having contaminating species on an edge portion;

providing a container having a cavity therein for holding a volume of a solvent;

providing a rotatable shaft having a first end that is free and a second end that is attached to a bearing mounted in a support structure, said support structure having an adjustable height;

mounting said wafer at a center point to said first end of the rotatable shaft;

positioning said wafer vertically in said container and adjusting a height of said bearing such that only a predetermined edge portion of the wafer is exposed to said volume of solvent;

rotating said wafer with said edge portion contacting said volume of solvent by turning said rotatable shaft; and

analyzing said volume of solvent and determining said contaminating species.

2. (Cancelled)

U.S.S.N. 09/837,124

3. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of filling said container with a volume of solvent that comprises an acid.

4. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of filling said container with a volume of solvent that comprises HF.

5. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of filling said container with a volume of solvent that comprises HF in water at less than 20 vol. %.

6. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of exposing an edge portion that is less than 10 mm wide on the wafer to said volume of solvent.

U.S.S.N. 09/837,124

7. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of exposing an edge portion that is between about 1 mm and about 3 mm wide on the wafer to said volume of solvent.

8. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of analyzing said volume of solvent by an inductively coupled plasma mass spectrometer.

9. (Original) A method for detecting contaminating species on a wafer edge according to claim 1 further comprising the step of providing said container with an arcuate bottom formed to a radius between about 10 cm and about 15 cm.

10. (Original) A method for detecting contaminating species on a wafer edge according to claim 2 further comprising the step of mounting said wafer at a center point by vacuum means.

U.S.S.N. 09/837,124

11. (Original) A method for detecting contaminating species on a wafer edge according to claim 2 further comprising the step of mounting said wafer at a center point by a vacuum suction cup.

12. (Original) A method for detecting contaminating species on a wafer edge according to claim 2 further comprising the step of rotating said wafer by turning said rotatable shaft by a motor means.

13. (previously presented) An apparatus for collecting contaminating species from a wafer edge comprising:

a container having a cavity therein for holding a volume of a solvent; and

a wafer mounting device for supporting a wafer over said container such that only a predetermined edge portion is exposed to said volume of solvent, said wafer mounting device further comprises a rotatable shaft having a free end and a fixed end, said fixed end being rotatable in a bearing that is mounted in a support structure; and

means for rotating said wafer by rotating said rotatable shaft.

U.S.S.N. 09/837,124

14. (Original) An apparatus for collecting contaminating species from a wafer edge according to claim 13, wherein said container being provided with an arcuate bottom formed with a radius between about 10 cm and about 15 cm.

15. (Original) An apparatus for collecting contaminating species from a wafer edge according to claim 13, wherein said volume of solvent comprises an acid.

16. (Original) An apparatus for collecting contaminating species from a wafer edge according to claim 13, wherein said volume of solvent comprises HF in water at less than 20 vol. %.

17. (Original) An apparatus for collecting contaminating species from a wafer edge according to claim 13, wherein said predetermined edge portion is less than 10 mm wide.

18. (Original) An apparatus for collecting contaminating species from a wafer edge according to claim 13, wherein said predetermined edge portion is between about 1 mm and about 3 mm wide.

U.S.S.N. 09/837,124

19. (Cancelled)

20. (Original) An apparatus for collecting contaminating species from a wafer edge according to claim 19, wherein said free end of the rotatable shaft is further equipped with a vacuum means for attaching to said wafer.